## Chapter 9

## Fruit and Vegetable Consumption

Nutrition plays a vital role in achieving and maintaining optimum health. Dietary factors have a significant impact in decreasing the risk of heart disease, stroke, diabetes mellitus, obesity, and atherosclerosis. Fruits and vegetables are essential parts of a healthy diet. They are rich in complex carbohydrates, fiber, minerals, and vitamins. They are also low in fat and calories. The National Academy of Sciences, the U.S. Department of Agriculture, the U.S. Department of Health and Human Services, and the National Cancer Institute have determined that a minimum number of five servings of fruits and vegetables per day are needed to maintain good health. Accumulating scientific evidence indicates that a diet low in fat and high in fiber, which includes many fruits and vegetables, reduces the risk of getting certain types of cancer. Most fruits and vegetables contain anti-oxidants that are scientifically believed to reduce blood lipid levels and help prevent early aging process.

One of the objectives for Lancaster Healthy People 2010 is to improve the health, fitness, and quality of life of all County residents and reduce their chronic disease risk by promoting regular daily physical activity and optimal nutritional status. To achieve this goal, an educational approach has been proposed to increase per capita consumption of fruits and vegetables from the current national average of 2.5 servings per day to at least 5 servings per day. BRFSS respondents were asked six questions about their consumption of fruit juices, fruits, green salads, potatoes, carrots, and other vegetables to assess how often people in Lancaster County eat fruits and vegetables. Based on the responses to these six questions, an index of fruit and vegetable consumption per day was created by summing the frequency of consumption of the food items. Questions on fruits and vegetable were not asked in the 1999 survey.

## Consumption of five or more Fruit and Vegetable servings

In 2000, three of every ten adults (30.7%, 95% CI, 28.3% - 33.1%) in Lancaster County ate the recommended five or more servings of fruits and vegetables each day. 18.4 percent reported consuming 3-5 times per day and almost half of the adults (48.4%) ate 1-4 times daily. Only 2.5 percent consumed less than once a day or never (Fig.74).

Table 20 shows the consumption of fruits and vegetables in the previous years. This table reveals a similar pattern of daily consumption.

Fig.74: Daily Consumption of Fruits and Vegetable According to 2000 Survey

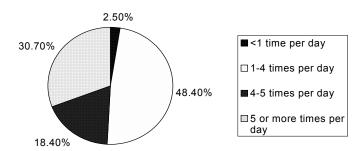
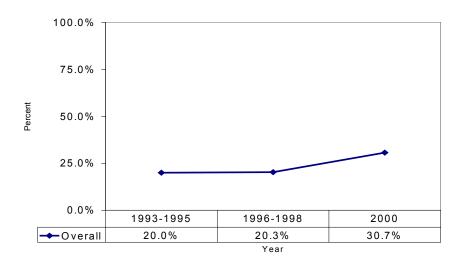


Table 20: Consumption of Fruits and Vegetables				
Year	93-95	95-98	1999	2000
Less than1 times per day	4.9%	4.1%	N/A	2.5%
1-4 times per day	56.4%	59.4%	N/A	48.4%
4-5 times per day	18.7%	16.3%	N/A	18.4%
5 or more times per day	20%	20.3%	N/A	30.7%

## **Prevalence and Trend**

The proportion of respondents who reported consuming fruits and vegetables five or more times a day increased in 2000 (30.8 %) after remaining fairly stable (around 20 % from 1993 to 1998 (Fig.75).

Fig.75: Consumption of Fruits and Vegetables
Five or More Times a Day



Lancaster County men (29.7%) and women (31.8%) showed little difference in eating fruits and vegetables five or more times a day (Fig.76).

100.0% 75.0% 50.0% 25.0% 0.0% 1993-1995 1996-1998 2000 11.4% 17.5% 29.7% Male Female 29.6% 23.1% 31.8% Year

Fig.76: Consumption of Fruits and Vegetables by Gender

Older adults (41.3%) were twice as likely as younger adults (23.1%) to comply (23.1) with the recommended five or more servings of fruits and vegetables per day by the "1995 Dietary guidelines for Americans." Consumption of adequate (five or more serving) fruits and vegetables increased as the age increased (Fig.77).

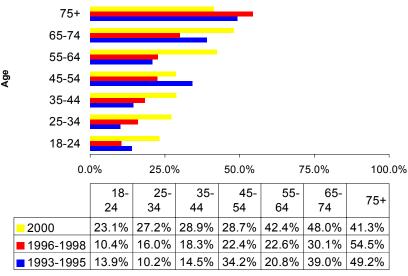


Fig 77: Trend in Consumption of Fruits and Vegetables
Five or More Times a Day by Age Group

Percent

Low-income respondents were two times more likely than respondents of higher income levels to consume appropriate amount of fruits and vegetables. In 2000, only 16.9 percent of the respondents with less than \$10,000 income reported eating these recommended foods as compared with 35.4 percent of the respondents with \$50,000 or more income. Similar trends were also observed in the 1993-1995 and 1996-1998 surveys (Fig.78).

Education level and racial origin of the respondents did not show any demonstrable trends in fruit and vegetable consumption (Table 21).

Fig 78: Consumption of Five or More Fruits and Vegetable by Income Group

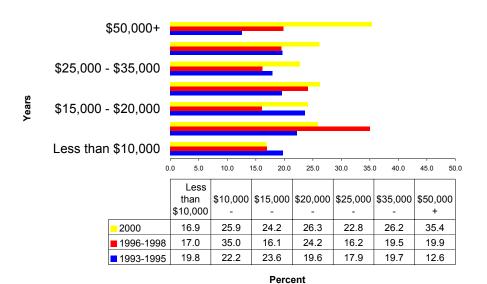


Table 21: Consumption of Fruits and Vegetables Five or More Times a Day Year 1993-1995 1996-1998 2000 Education 14.6% 20.2% Some HS or Less 13% HS Grade or GED 19.6% 20.3% 34.4% Some College 15.6% 19.9% 29.8% College Grade 21.4% 28.7% 25.7% Race White 20.2% 20.1% 30.6% Non-White 15.5% 23.2% 31.7%

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